DETAILED ACTION

Claims 1-5, 7-10 are pending in this application.

The allowance of claims 1-2, 4-5, 7-10 as stated in the previous action has been withdrawn in view of the rejection below.

Claim Rejections - 35 USC § 112

Claims 1-3, 8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, line 7, it is unclear what comes after the word "predetermined". Apparently the word condition should not have been crossed out.

Claim 2 is rejected for incorporating the deficiency of its base claim.

Claim 3 recites the limitation "the lateral force" in line 4. There is insufficient antecedent basis for this limitation in the claim.

Claim 8 recites the limitation "the display means" in line 2. There is insufficient antecedent basis for this limitation in the claim

In claim 3, it is unclear how the lateral force is inputted to the vehicle through the wheel.

Claim Objections

Claim 4 is objected to because of the following informalities: in line 21, the word "thedeviation" should be separated to read - - the deviation - - . Appropriate correction is required.

Claim 10 is objected because of the following informalities: in line 2, one of the words apparently "the" should be deleted in "a,the" before the word vehicle. Appripriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claim 3 is rejected under 35 U.S.C. 102(e) as being anticipated by Naruse et al. (U.S. Patent No. 6,374,159).

As to claim 3, Naruse et al. disclose a vehicle state analyzing system for analyzing state of a vehicle having wheels, comprising: measuring means, provided in the vehicle, for measuring deviation of fluctuation of fluctuation rate of lateral force inputted to the vehicle through the wheel (See col. 5, lines 16-62); and computing means for computing time dependent change of data measured by the measuring

means (calculating is considered as a computing means; see abstract; col. 26, lines 11-22; col. 28, line 60-col. 29, line18; col. 34, line 64-col. 35, line 14).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-2, 4-5, 7-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Naruse et al. (U.S. Patent No.6,374,159).

As to claim 1, Naruse et al. disclose a vehicle state analyzing method , comprising a suspension/chassis setting step for setting an optimum alignment state in a suspension/chassis of a vehicle; Naruse does not specifically disclose an initialize mode measuring step and a monitor mode measuring step. However, Naruse et al. disclose values of the measurement of lateral force from the first timing to the second timing which is well considered as an initialize mode measuring step in which a lateral force is measured, by using a force sensor for detecting input of force from a wheel to a vehicle body, when the vehicle is set is run on a road surface as reference under a predetermined condition, and deviation of fluctuation or fluctuation rate of the lateral force with respect to the optimum alignment state is measured ; a monitor mode measuring step considered as the second timing in which the lateral force is measured, by using the force sensor, when the vehicle thereafter is run on a road surface, and deviation of fluctuation rate of the lateral force with respect to the optimum alignment

state is measured (See col. 26, lines 11-22). Naruse discloses an analyzing step (comparing) (See col. 10, lines 28-45) in which change of the alignment state of the vehicle is analyzed on the basis of ratio of the deviation obtained at the monitor mode measuring step with respect to the deviation obtained at the initialize mode measuring step. (col. 6, lines 48-56).

As to claim 2, Naruse et al. disclose the deviation of fluctuation or the fluctuation rate of the lateral force is measured when normal running of the vehicle (See col. 3, lines 33-46; col. 6, lines 48-56).

As to claims 4, 7, Naruse et al. disclose a vehicle state analyzing system for analyzing state of a vehicle having wheels, comprising a force sensor for detecting input force from the wheel to a vehicle body (See Fig. 11 #124); initialize mode memory means in which a lateral force is measured by using the force sensor for detecting input of force from the wheel to the vehicle body, when the vehicle is set to an optimum alignment state is run on a road surface as reference under a predetermined condition and deviation of fluctuation or fluctuation rate of the lateral force with respect to the optimum alignment state is measured, and stored (See Fig. 11; col. 4, lines 37-46); Although Naruse et al does not specifically disclose initialize mode memory means and monitor mode memory means, it discloses a memory means (Fig. 11 #136), wherein one of ordinary skill in the art would use such memory means for initialize mode and monitor mode as it contains the results of measurement (from initializing to monitoring) of lateral force of each of reference wheel; Naruse et al. disclose monitor mode memory means in which the lateral force is measured, by using the force sensor, when the

vehicle thereafter is run on the road surface and deviation of fluctuation or fluctuation rate of the lateral force with respect to the optimum alignment state is measured, and stored (See Fig. 11, 15C; col. 3, lines 5-12; col. 6, lines 48-56); Naruse et al. disclose analyzing computation means in which change of the alignment state of the vehicle is analyzed on the basis of ratio of the deviation stored in the monitor mode memory means with respect to the deviation stored in the initialize mode memory means; (See Fig.12 #162 for the computation means); and information output means (display See Fig. 12 # 164) for outputting at least one of the information stored in the initialize mode memory means, the information stored in the monitor mode memory means and the result of analysis obtained by the analyzing computation means.

As to claim 5, Naruse et al. disclose the force sensor is provided in the vehicle, the initialize mode memory means, the monitor mode memory means, the analyzing computation means, and the information output means are provided outside the vehicle (See Fig. 11).

As to claim 8, Naruse et al. disclose a display means (See # 134, Fig. 11) for displaying the state of the vehicle obtained by the analyzing computation means (Col. 27, lines 10-19).

As to claim 9, Naruse et al. disclose adjustment means for automatically adjusting alignment of a suspension on the basis of the vehicle analyzed by the analyzing computation means (See col. 6, lines 48-60; Fig. 11).

As to claim 10, Naruse et al. disclose a vehicle state management comprising a vehicle state analyzing system for analyzing state of a vehicle having wheels,

comprising a force sensor for detecting input force from the wheel to a vehicle body (See Fig. 11 #124); initialize mode memory means in which a lateral force is measured by using the force sensor for detecting input of force from the wheel to the vehicle body, when the vehicle is set to an optimum alignment state is run on a road surface as reference under a predetermined condition and deviation of fluctuation or fluctuation rate of the lateral force with respect to the optimum alignment state is measured, and stored (See Fig. 11; col. 4, lines 37-46); Although Naruse et al does not specifically disclose initialize mode memory means and monitor mode memory means, it discloses a memory means (Fig. 11 #136), wherein one of ordinary skill in the art would use such memory means for initialize mode and monitor mode as it contains the results of measurement (from initializing to monitoring) of lateral force of each of reference wheel; Naruse et al. disclose monitor mode memory means in which the lateral force is measured, by using the force sensor, when the vehicle thereafter is run on the road surface and deviation of fluctuation or fluctuation rate of the lateral force with respect to the optimum alignment state is measured, and stored (See Fig. 11, 15C; col. 3, lines 5-12; col. 6, lines 48-56); Naruse et al. disclose analyzing computation means in which change of the alignment state of the vehicle is analyzed on the basis of ratio of the deviation stored in the monitor mode memory means with respect to the deviation stored in the initialize mode memory means; (See Fig.12 #162 for the computation means); and information output means (display See Fig. 12 # 164) for outputting at least one of the information stored in the initialize mode memory means, the information stored in the monitor mode memory means and the result of analysis obtained by the

analyzing computation means; Naruse et al. also disclose a vehicle testing apparatus having a road surface for running which causes the wheels to be rotated, detecting the state of the vehicle from outside, and being capable of storing the state of the vehicle detected from the outside and the state of the vehicle analyzed by the vehicle state analyzing system (See col. 9, lines 25-50).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Yoshikawa (U.S. Patent No. 6,487,475) discloses driving state monitoring apparatus for vehicles.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to GERTRUDE ARTHUR JEANGLAUD whose telephone number is (571)272-6954. The examiner can normally be reached on Monday-Friday from 8:30 a.m. to 6:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Black can be reached on (571) 272-6956. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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